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Abstract

Three studies investigated the conditions under which imagining intergroup contact would lead to greater projection of positive traits to outgroups. In Experiment 1 (Mexico) imagined contact predicted greater self-outgroup positive trait overlap for majority but not minority ethnic groups. In Experiment 2 (UK) imagined contact led to greater projection of positive traits to the outgroup for lower compared to higher identifiers. In Experiment 3 (UK) imagined contact led to greater projection of positive traits to the outgroup when the self was salient compared to when the outgroup was salient. These findings suggest that the social cognitive consequences of imagined contact are most favorable for intergroup relations when the personal self, but not social self, is salient. We discuss the implications of these findings for a developing model of imagined contact effects.

Keywords: INTERGROUP CONTACT; IMAGINED CONTACT; INDIRECT CONTACT; SOCIAL PROJECTION

Imagining intergroup contact promotes projection to outgroups

Improving intergroup relations has always been a central concern for social psychologists. This is why, for almost a century, theorists have been trying to develop ways to reduce conflict between different groups (Allport, 1954; Brophy, 1946; Williams, 1947). Observation of destructive intergroup conflicts, such as those in the Middle East, Darfur, or Northern Ireland, serve as vivid reminders of the importance of this research. Unprecedented immigration and the globalization of education and employment further underscore the urgent need for interventions that promote tolerance and co-operation. In this article, we report our investigation into the conditions that most favor positive outcomes for a novel intervention strategy based on the mental simulation of intergroup contact.

Intergroup contact

The interaction and co-existence of groups that differ in terms of nationality, ethnicity, religion is in many cases problematic (e.g. Curseu, Stoop, & Schalk, 2007; Greenland & Brown, 2005; Stephan, Ybarra, & Bachman, 1999; Zagefka, Brown, Broquard, & Leventoglu Martin, 2007). The most influential social psychological theory focusing on reducing conflict between different groups is Intergroup Contact Theory (Allport, 1954; Pettigrew, 1998). The idea that intergroup contact can reduce bias has received much attention throughout the 50 years from its formulation. The hypothesis suggests that contact on its own is beneficial, but also that there are optimal conditions that most effectively lead to improved intergroup relations. For instance, there is now much evidence that contact reduces prejudice if it is perceived as *positive* by the interacting members/groups (Pettigrew, 1998, see also Eller & Abrams, 2004; Islam & Hewstone, 1993; Paolini, Hewstone, Cairns, & Voci, 2004; for a recent meta-analysis see Pettigrew & Tropp, 2006).

Recent advances in contact research

Extensive research on the contact hypothesis has confirmed that contact, at its most basic level, works. Pettigrew & Tropp's (2006) meta-analysis demonstrated that intergroup contact is significantly associated with reduced prejudice (r = -.215). We therefore know that contact has a robust effect and that while there may be facilitatory conditions that improve its' effectiveness, as a basic *concept* it

appears to be extremely powerful. Our interest was in how powerful the idea of contact is, and in particular how far we could stretch the operationalization of contact and still observe benefits for intergroup attitudes. Some existing research has, in fact, already shown us that we can stretch the idea beyond *actual* contact.

Wright, Aron, McLaughlin-Volpe, and Ropp (1997) introduced the concept of *extended contact*. The idea here is that the simple knowledge that ingroup members have outgroup friends can be enough to reduce bias towards the outgroup. Wright et al. (1997) provided convincing evidence that actual contact was simply not necessary to observe improved intergroup relations as long as their intervention invoked some basic element of the contact experience (in their case, the reduced anxiety, psychological closeness and positive behavioral norms that can characterize contact with outgroups). The practical implications that derive from the effectiveness of so-called indirect forms of contact are very important. Such findings increase the applicability of interventions that use contact as way to improve intergroup relations.

Recent research suggests that there may also be a way to capitalize on the benefits of contact when there is no opportunity for actual or *even* extended contact (for example, where group members do not even know anyone who has positive relations with the outgroup). Turner, Crisp & Lambert (2007) proposed that even *imagining* intergroup contact may have beneficial effects on intergroup attitudes. In three experiments, they demonstrated that thinking about contact with members of an outgroup (in their case, elderly and homosexual people) improved attitudes toward the outgroup as a whole and reduced perceptions of outgroup homogeneity. Imagined contact effects are a testament to the power inherent in the concept of intergroup contact. Our interest was in further investigating the conditions under which imagined contact is most effective.

Imagined contact: How does it work?

There is growing evidence for the benefits of mental simulation in decreasing stereotyping and implicit prejudice (Blair, Ma, & Lenton, 2001; see also Bargh, 1999). Blair et al. (2001) defined mental imagery as the "conscious and intentional act of creating a mental representation of a person, object or

event by seeing it with the 'mind's eye' " (p. 828). They found that after imagining a (counter-stereotypic) strong woman, participants demonstrated less implicit stereotypes than participants who engaged in neutral or stereotypic mental imagery (imagining a weak woman or a strong man) or who had not engaged in any imagery. More broadly, mental imagery has been found to have similar characteristics as the real experience regarding emotional and motivational responses (Dadds, Bovbjerg, Redd, & Cutmore, 1997; Paivio, 1985) and neurological bases (Farah, 1989; Kosslyn, Behrmann, & Jeannerod, 1995). Neuroimaging technologies such as positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) have shown that mental imagery shares the same neurological basis as perception and employs similar neurological mechanisms as memory, emotion and motor control (Kosslyn, Ganis, & Thompson, 2001).

The effects of mental simulation are not restricted to stereotyping or intergroup attitudes. Garcia, Weaver, Moskowitz and Darley (2002) argued that imagining the presence of other people induced a mental state similar to when others were physically present. In other words, imagining others led to the same behavioral responses that were observed when others were actually present in a social situation. Investigating the bystander apathy effect, Garcia and colleagues (2002) found that simply imagining a group of people in a helping situation led to lower levels of perceived responsibility, as observed in classical studies of bystander apathy effects, where there actually is the physical presence of others.

Building on this work and extending it to the domain of intergroup attitudes, Turner et al. (2007) argued that imagining intergroup contact can have beneficial effects on intergroup attitudes. In two experiments participants were asked to imagine a conversation with an elderly person and in a third experiment participants imagined they were sitting next to a gay person in the train and conversing with them until they reached their stop. Under these contact conditions participants reported less intergroup anxiety and more positive attitudes toward the outgroup.

The research reviewed above shows that mental imagery techniques increase the accessibility and expression of the relevant emotional and behavioral responses that are observed in real situations.

Based on findings that simply thinking or imagining interacting with a group member can activate relevant mental structures, we expected that imagining a contact situation would trigger the responses typically associated with the actual experience. In contact research, significant emphasis has been placed on the affective factors that mediate the contact-bias relationship, that is, the affective processes that can explain why contact leads to improved intergroup relations (Pettigrew, 1998; Tropp & Pettigrew, 2005a; for meta-analysis see Pettigrew & Tropp, 2000). Correspondingly, Turner et al. (2007) focused on affective consequences of imagined contact. In contrast to the emphasis placed on affective processes triggered by actual and also imagined contact, and the first way in which we extend previous work on imagined contact, we focused on cognitive consequences, and in particular, the projection of self positivity.

Projection

According to Social Projection Theory (Clement & Krueger, 2002; Robbins & Krueger, 2005), people form opinions about others based on expected similarities or differences between self and others. As a result of this process, people tend to overestimate their own characteristics in a target group, a phenomenon referred to as *false-consensus* (Ross, Greene & House, 1977). In their recent meta-analysis, Robbins and Krueger (2005) define projection as "a process or a set of processes by which people expect others to be similar to themselves" (p. 32) and the "cognitive basis for ingroup favoritism" (p.42). Projection is a robust phenomenon and is generally stronger for target groups that are close to the self (ingroups) (Clement & Krueger, 2002; Krueger & Zeiger, 1993). As one might therefore expect, social categorization is a consistent moderator of social projection (Cadinu & Rothbart, 1996; Monin & Norton, 2003; Schubert & Otten, 2002; for review see Krueger, 2000). Projection should be greater to ingroup members (similar others) than outgroup members (dissimilar others). Consistent with this, Mullen, Dovidio, Johnson and Copper (1992) demonstrated that participants overestimated ingroup members' agreement with their own opinion and underestimated the outgroup's consensus with their opinion. Clement and Krueger (2002) found a lack of projection to the outgroup in minimal group settings. Similarly, Jones (2004) found that categorization predicted

false consensus via the mediating path of perceived social distance with real groups. That is, projection to the ingroup is higher than the outgroup because the social distance with the outgroup is larger.

The moderating role of ingroup versus outgroup categorization is assumed to rest on perceptions of similarity, an assumption that has received empirical support. Ames (2004a) found that when people perceive high initial general similarity to a target group, they engage in more projection and less stereotyping techniques. According to Ames' (2004b) similarity contingency model of social inference, similarity beliefs moderate the use of projection and stereotyping: Greater perceived similarity increases projection and decreases stereotyping. In other words, similarity guides social judgment and motivates perceivers to rely on projection when the target group is similar to themselves and to stereotyping when the target is different. Critically, Brown and Hewstone (2005) argue that by attributing traits associated with the self to an outgroup member "is likely to lead to a more positive evaluation of her or him, which may then generalize to the outgroup as a whole" (p.293).

We also know that intergroup contact can lead to the formation of a common ingroup identity and greater perceived similarity between ingroups and outgroups (Eller & Abrams, 2004; Pettigrew, 1998). For example, McGlothlin and Killen (2005), found that interethnic contact in school settings lead to greater perceptions of similarity and friendship potential in children. Wright and Tropp (2005) found that White pupils in integrated contact settings (bilingual classes) perceived greater similarity between the self and Latino children than pupils in segregated settings (English-only classes). Gaertner, Dovidio, Anastasio Bachman and Rust (1993) showed that contact breaks down intergroup boundaries and promotes greater similarity (Gaertner, Mann, Dovidio, Murrell & Pomare, 1990). In sum, contact creates the similarity conditions that should, according to Ames (2004a;b) lead to greater projection to outgroups; and closes the psychological distance, breaking down the category boundary that inhibits projection to outgroups (Clement & Krueger, 2002). Since the self-concept is predominantly positive (Alicke, 1985, Baumeister, 1998, Brown & Dutton, 1995, Sears, 1983) and given that the self serves as an informational-evaluative base (Cadinu & Rothbart, 1996, Gramzow & Gaertner, 2005. Gramzow, Gaertner, & Sedikides, 2001) we can predict specifically greater projection

of positive self-traits to outgroups following contact, or in our case, imagined contact. In other words, if positive contact can shift outgroup members closer to the self, they will therefore benefit from positive projection that ingroup members typically benefit from (Robbins and Krueger, 2005, Otten & Wentura, 2001). Overall similarity, on both positive and negative traits, should increase following positive contact but the effect is expected to be smaller. In the three experiments we report below, we tested this basic hypothesis and the conditions under which it would be most likely to apply.

Experiment 1: Majority vs. minority groups

Our aim in this research was to examine the conditions under which imagined contact would lead to more or less projection of positive self traits to outgroups. One of the most immediately recognizable qualities of real intergroup relations is that they are almost always characterized by numerical or status differences. Previous research has shown that minority groups express more bias and favor the ingroup more strongly than majority groups (Bettencourt, Miller & Hume, 1999; Brewer, Manzi, & Shaw, 1993; Leonardelli & Brewer, 2001). In Tropp and Pettigrew's (2005b) meta-analysis, the authors focused in part on the different consequences of contact for majorities and minorities. They found that overall, the relationship between contact and prejudice is weaker among minority groups. The authors suggested that minority groups' perceptions and experiences of prejudice inhibit the beneficial effects of contact (see also Tropp, 2003). In general, minority groups are more suspicious against the majorities and enjoy the contact experience less (Pinel, 2002). This can result in refusing to assimilate like the majority group expects them to (Zick, Wagner, Van Dick & Petzel, 2001), experiencing more anxiety (Plant & Devine, 2003) and evaluating the outgroup less favorably (Pinel, 2002). Based on this research, we therefore expected that imagining positive contact would lead to the projection of positive traits for the majority group, but not the minority group.

This study was set in Mexico and investigated the relations between Indigenous people and Mestizos. Mestizos constitute the majority of the population (90%) and are of mixed American Spanish and American Indian descent. Indigenous people of Mexico come from an Amerindian ethnic background and comprise up to 10% of the population. The relations between the two different

ethnic groups are characterized by differences in status, language, way of life and traditions, opportunities in education and employment, all favoring the majority group (National commission for the development of the indigenous towns, 2004).

Method

Participants and design

Participants were 94 students[1] (39 were Indigenous and 55 were Mestizos) of Benemerita Universidad Autonoma Puebla and Universidad Pedagogica Nacional, Campus Puebla in Mexico. The sample consisted of 62 women and 31 men[2]. The age range was between 17 and 45 (M = 24.0, SD = 6.1). Participants were allocated randomly either to a positive contact condition or to a neutral contact condition. The questionnaire for this study was translated from English into Spanish by two native speakers of Spanish and was back-translated by a bilingual person (for a similar procedure see Brislin, 1976).

Procedure

Two imagined contact conditions were compared: Imagined *positive* contact and imagined *neutral* contact. We focused on inducing a positive imagined interaction versus a neutral contact experience, because previous research has demonstrated the effective role of positive contact, rather than neutral or simple quantitative contact in improving intergroup relations (Pettigrew, 1998; see also Eller & Abrams, 2004; Islam & Hewstone, 1993; Stephan, Diaz-Loving, & Duran, 2000; Voci & Hewstone, 2003). Previous imagined contact work used control conditions that did not include contact with the outgroup, rather they involved an equally load inducing but irrelevant task (e.g., "imagine an outdoor scene and list the different things that you saw in the scene you imagined" (Turner et al., 2007, Experiment 1). While this importantly tells us that there is something about imagining contact that has benefits for intergroup relations, it does not tell us whether the type of contact is important. In this experiment we therefore examined whether it was specifically positive imagined contact, rather than contact that was neither specified as positive or negative, that had the most beneficial effect.

Participants assigned in the positive imagined contact condition were instructed:

> Please spend five minutes imagining that you speak to a Mestizo (or an Indigenous person respectively) who has sat next to you in the bus. You spend about 30 minutes chatting until you reach your stop and depart the bus. During the conversation you find out some *interesting* and *positive* things about them [italics added]. Please list the things you found out about them.

Participants in the neutral imagined contact condition received the following instructions:

> Please spend five minutes imagining that they speak to a Mestizo (or an Indigenous person respectively) that has sat next to you in the bus. You spend about 30 minutes chatting until you reach your stop and depart the bus. Please list the things you found out about them.

Following this participants were asked to complete measures of projection of positive and negative traits.

Dependent variables

Two identical lists of 20 personality traits were used to measure projection (taken from Anderson, 1968). Participants were asked to select the traits that they believed were characteristic: i) of themselves (first list) and ii) of Mestizos/Indigenous people respectively (second list). In order to differentiate between projection of positivity and of negativity, half of the traits were positive (*intelligent, resourceful, tolerant, observant, logical, practical, entertaining, careful, bold* and *studious*) and half were negative (*aggressive, boastful, messy, disrespectful, gullible, moody, opportunist, disagreeable, possessive* and *snobbish*) (derived from Anderson, 1968). This scale constitutes a typical scale for measuring projection from self to a target group (see Cadinu & Rothbart, 1996; Riketta, 2006).

Results and discussion

Means and standard deviations of the dependent variable as a function of group membership and contact condition can be found in Table 1. Consistent with our hypotheses we expected the projection of positive, but not negative, traits to increase after imagining positive contact. To form the projection index we calculated for each participant a) the number of positive traits that were shared

between the self and outgroup b) the number of negative traits that were shared between the self and outgroup.

Projection

We chose contrast analysis as our strategy because it is recommended over more exploratory approaches like Analysis of Variance (ANOVA) in hypothesis-driven research (Judd & McClelland, 1989). Contrast analysis is particularly recommended when testing precisely specified hypotheses as it allows a powerful and clear test of their validity (see Rosenthal, Rosnow, & Rubin, 2000). We also used an established contrast strategy, Helmert contrasts, to incrementally test our specific prediction that positive projection should be highest following positive imagined contact and for the majority group. This strategy involves testing three orthogonal contrasts that successively test differences across the four treatment conditions. The order for all contrasts was: Neutral contact minority group versus neutral contact majority group versus positive contact minority group versus positive contact majority group. Contrast 1 was -1, +1, 0, 0 and tested whether there were differences in projection between the majority and the minority group following neutral imagined contact. Contrast 2 was +1, +1, –2, 0 and tested whether there were differences between the minority and majority groups following neutral imagined contact and the minority group under positive imagined contact. Contrast C was -1, -1, -1, +3 and tested the difference in projection between majority groups following positive imagined contact compared to all the other conditions. The pattern of significance across these three contrasts will offer support for our hypothesis that majorities who imagine positive contact will project to a greater extent than all other conditions. Correspondingly there should be no differences in projection for minority versus majority groups following neutral imagined contact (Contrast 1 will be non-significant). There should also be no differences between either majority or minority groups following neutral imagined contact or minority groups following positive imagined contact (Contrast 2 will be non-significant). There should be a difference (higher projection) for the majority group following positive imagined contact compared to all other conditions (Contrast 3 will be significant).

The results confirmed our hypothesis. Contrast A was not significant, t (90) = 1.11, p = .270, Contrast B was not significant, t (90) = -.57, p = .572 but Contrast C was significant, t (90) = 3.03, p = .003. Projection of positive traits to the outgroup was higher following positive imagined contact for the majority group compared to all other conditions, see Table 1.

Overall projection (positive and negative traits combined) followed the same (but less apparent) pattern as positive traits. Contrast A was not significant, t (90) = .42, p = .676, Contrast B was not significant, t (90) = -.84, p = .404, Contrast C approached significance, t (90) = 1.88, p = .064. We would expect this to follow the same pattern, and essentially reflect the pattern of projection of positive traits. None of the contrasts were significant for negative traits[3].

These findings are in line with previous research regarding the different effects of contact on majority and minority groups. In the case of minorities, research has shown that contact is not necessarily associated with more positive relations with the majority (see Pettigrew & Tropp, 2006; Tropp & Pettigrew, 2005b) and consistent with this we also observed no effects of imagined contact on projection. The findings of this study show that there are important differences between Indigenous people and Mestizos in how they respond to imagined positive contact: The projection of positivity is enhanced but only for majority group members.

What process might be responsible for contact promoting projection of positive traits to a greater extent for majorities than minorities? As we mentioned earlier, minority and majority group members react differently to intergroup contact, with minorities generally being more skeptical towards contact interventions and less willing to embrace the positive effects of contact (Tropp & Pettigrew, 2005b). We also know that minorities tend to identify with their ingroup more strongly than majorities (Simon & Brown, 1987) which can be seen as a reaction to the inherent threat associated with minority status (a "psychological closing of ranks"). Given that high identification can be associated with more negative outgroup attitudes (Brown, Maras, Masser, Vivian, & Hewstone, 2001; Mummendey, Klink, & Brown, 2001) or less willingness to embrace prejudice-reduction interventions (Crisp, Stone, & Hall, 2006; Hornsey & Hogg, 2000), one possible cause of minorities reluctance to

project their positive attributes to the outgroup majority is high ingroup identification associated with perceived threat to distinctiveness (Ellemers, Spears, & Doosje, 2002). If high identification is therefore the proximal psychological cause of inhibited projection to outgroups following imagined contact then we would expect to obtain similar results with individuals who identify highly with their ingroup, irrespective of minority versus majority status. Put another way, imagined positive contact should be more effective for individuals who don't identify strongly with their ingroup.

Experiment 2: National identification

In order to further investigate the moderators, consequences, and generalizability of imagined contact, a second study was carried out in the UK and focused on the relations between English and French nationals. The context of Anglo-French relations provides an interesting social setting. England and France share a sometimes troubled history but, at the same time, their geographical reciprocity and common European Union membership pose the need for co-operative co-existence. This study investigated whether people who identify highly with their national ingroup, as opposed to less highly identifying individuals, would be less susceptible to the benefits of imagined contact.

To elaborate on our hypothesis: Social Identity Theory (Tajfel & Turner, 1979) suggests that group membership can provide a means for individuals to maintain a positive self-image, providing that the comparison of the ingroup with other similar groups favors the ingroup (Brown & Abrams, 1986; for review see Ellemers et al., 2002). Differences in identification are found to play a key moderating role of this tendency (for meta-analysis, see Jetten, Spears, Postmes, 2004). Higher identifiers tend to defend the group more than lower identifiers when the group identity is threatened by differentiating themselves from the relevant outgroup (Branscombe, Wann, Noel and Coleman, 1993; Jetten, Spears, & Manstead, 2001). Recent research has demonstrated that recategorization into a common ingroup (one consequence of contact) can represent just the sort of threat that can inspire intergroup bias, especially in the case of high identifiers (Crisp, 2006; Crisp & Beck, 2005; Crisp, Stone, & Hall, 2006; Hornsey & Hogg, 2000; Stone & Crisp, *in press*; van Leeuwen, van Knippenberg, & Ellemers, 2003). Since higher identifiers tend to resist processes that imply closeness with the

outgroup (in our case positive imagined contact), we predicted that the effects of imagined contact will have less of an impact on higher compared to lower identifiers. More precisely, we expect that higher identifiers will project less under the positive imagined contact compared to lower identifiers.

Method

Participants and design

Sixty-four British students participated in this experiment in exchange for a small monetary payment. The sample consisted of 24 women and 40 men and ages ranged from 18 to 39 (M = 20.4, SD = 2.8). Participants were randomly allocated to either an imagined positive *intergroup* contact or to an imagined positive contact condition with no intergroup component.

Procedure

Participants were approached around campus and asked to complete a study of intergroup attitudes. They were first asked to complete the identification scale by rating the extent to which they agree with the four following statements (ranging from 1, not at all, to 7, very much): "I identify strongly with other people who share my nationality", "My nationality is an important part of who I am", "I feel strong ties with other people who share my nationality", "I feel a strong sense of solidarity with other people who share my nationality" (adapted by Branscombe et al., 1993). The contact manipulation followed. We asked participants in the imagined intergroup contact condition:

> Please spend the next five minutes imagining that you are talking to a French person who has sat next to you in a party. You spend some time chatting about several things. Please answer the following questions concerning the person you met.

Participants then completed a series of 13 questions regarding the other person and their interaction (e.g. "What were their hobbies?" "Have they traveled? Where have they been?" "What did you like about them?"). Participants in the control condition were instructed:

> Please spend the next five minutes imagining that you are talking to someone who has sat next to you in a party. You spend some time chatting about several things. Please answer the following questions concerning the person you met.

The same 13 questions that we used in the experimental condition followed.

This manipulation differs from the one employed in the previous experiment where we manipulated positive versus neutral contact. We changed the focus of our control condition here to answer a new question: Whether it was the identity of the target or just the positivity inherent in the context that led greater projection. This represents a control that has yet to be tested on imagined contact. Turner et al. (2007) used an outdoor scene as a control, ruling out cognitive load as an explanation of the effect, and also a simple outgroup prime, showing that it was something in the mental simulation of contact that was important. In Experiment 1 here we controlled for target and varied the positivity of the encounter. From this we know that the positive imagined contact is more effective than neutral imagined contact. Here in Experiment 2 we control for positivity (both conditions invoke an equally pleasant scene) while testing that the imagined contact effect requires a focus on a relevant target group member.

Dependent variable

We wanted here to use a more sensitive measure of projection than that used in Experiment 1. We used the same personality traits as in Experiment 1 but this time participants were asked to rate the extent to which they believed they possessed each trait on a 7-point scale (1, not at all, 7, very much) and then the extent to which they believe the outgroup possessed each trait using the same scale.

Results and discussion

Preliminary analysis

The use of a continuous measure of each trait attribution required an alternative calculation to that employed in Experiment 1. To obtain a projection score for each participant, we regressed each participant's responses about self on the responses about the outgroup separately for positive and for negative characteristics. We then used the resulting standardized beta-weights to measure a) the projection of positive traits and b) the projection of negative traits (for a similar process see Ames, 2004b). This is a useful measure of projection because it constitutes a scale ranging from positive

projection (with increasingly large positive mean betas) through to negative projection (with increasingly large negative mean betas). In other words, higher positive mean betas indicate that traits ascribed to the self are also ascribed to the outgroup (projection) while higher negative betas indicate that traits ascribed to the self tend *not* to be ascribed to the outgroup (i.e., differentiation, the opposite of projection).

Projection

We used moderated regression to assess the interaction of the continuous variable (identification) with the imagined contact manipulation (Aiken & West, 1991). We created an interaction variable by coding the contact condition as -1 and +1 (positive non-intergroup contact vs. positive intergroup contact) and multiplying it by the centered identification scores for each participant. Following that, we entered the interaction variable (contact condition x identification) into a multiple regression on a second step, after the entry of the contact condition and identification factors independently at step 1. This analysis on positive trait projection did not reveal any main effects of identification or contact but revealed the predicted significant interaction between identification and contact at step 2, $\beta = -.316$, $t = -2.34$, $p = .023$, R-squared change = .09.

Further analysis within experimental conditions revealed that under control (positive, non-intergroup) conditions, identification did not predict projection, $\beta = .173$, $t = .95$, $p = .353$. Importantly, however, following imagined positive intergroup contact lower levels of ingroup identification predicted greater projection of positive traits, $\beta = -.394$, $t = -2.23$, $p = .035$, (see Figure 1)[4]. In sum, the extent to which imagining intergroup contact led to the projection of positive self traits to the outgroup depended upon the extent to which participants identified with their ingroup: The lower they identified with their ingroup, the more they projected positive self-traits following imagined contact. With respect to the projection of negative traits, there was no interaction effect, $\beta = -.002$, $t = -.05$, $p = .959$, R-squared change = -.03, nor was there any interaction effect for overall projection (positive and negative traits combined), $\beta = .013$, $t = .10$, $p = .925$, R-squared change = -.01. No main effects were observed in either negative or overall projection.

This study investigated the effects of imagined positive contact on projection as a function of ingroup identification. It was shown that national identification can play a critical moderating role in determining the effects of imagined intergroup contact. Overall, higher identifiers were less likely to benefit from the imagined positive contact experiences compared to lower identifiers. Highly identified British participants projected less positivity towards the French outgroup under imagined positive contact conditions compared to lower identified participants. This is consistent with the literature on Social Identity Theory. Typically, especially in contexts that engender threat to a group member's distinct identity, higher identifiers will be more biased than lower identifiers (Gagnon & Bourhis, 1996; Perreault & Bourhis, 1999). Higher identifiers defend the group more than lower identifiers when the group identity is threatened by differentiating themselves from the relevant outgroup (Branscombe, et al., 1993; Jetten et al, 2001; Spears, Doosje, & Ellemers, 1997). Positive contact and its associated social distance implications represent a threat to the ingroup's distinctiveness. As a result, highly identified group members will resist by not projecting to the outgroup (see also Crisp et al., 2006; Hornsey & Hogg, 2000).

Experiment 3: Personal vs. social self

In Experiment 1 we found that imagining intergroup contact led to greater projection of positive self traits to outgroups (reflecting lower social distance and more positive intergroup attitudes), but that this effect was restricted to majority group members. Minorities did not project to the outgroup after imagined contact. We argued that the psychological cause of this inhibition of projection was higher identification, a typical characteristic of minority groups (Simon & Brown, 1987; also Brewer, 1991; Leonardelli & Brewer, 2001). In Experiment 2 we tested this hypothesis directly by measuring pre-manipulation ingroup identification. Consistent with our hypothesis we observed greater projection following imagined contact contingent upon identification. Lower identifiers projected positive traits to outgroupers following imagined contact to a greater extent than higher identifiers. In Experiment 3 we sought to provide a further test of this hypothesis by experimentally manipulating social identity salience.

From research on Social Identity Theory (Tajfel & Turner, 1979) we know that different aspects of the self are associated with different identities (Brewer, 1991; Hornsey & Jetten, 2004). Identities deriving from group memberships involve the social self and identities related to individual traits involve the personal self (e.g., Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Social projection is facilitated when the personal self is salient (Cadinu & Rothbart, 1996; Clement & Krieger, 2002). This makes sense: One is more likely to use one's own traits as a judgmental anchor when one has recently been thinking of one's own traits. We can make a link here with our previous findings regarding identification. Higher identifiers can be thought of as people for whom the collective self is most salient (at a given point in time). Lower identifiers can be thought of as people for whom the personal self is more salient. Our hypothesis is therefore that personal self salience, but not social self salience, will facilitate projection following imagined contact. Put another way, we will observe greatest projection to the outgroup if, along with imagined contact, we create conditions conducive to personal self salience. This will be additionally important from a practical perspective, because it will isolate a malleable facilitating condition that can enhance imagined contact effects (in contrast to, for example, majority group status).

One way of making the personal versus social self salient is by priming. This can be achieved by varying the order of ratings of the self and the outgroup (Cadinu & Rothbart, 1996). When asked to describe the self first, people think of their personal, idiosyncratic characteristics (personal self) before being asked to think of an outgroup. Under such conditions the *a priori* positive image of the self (Sears, 1983) is potentially more easily generalized to the outgroup. In contrast, when people think of the characteristics of the outgroup first, the social self is made salient (see Hall & Crisp, *in press*). Since the outgroup is by definition (more) distant from the social self, but not necessarily from the personal self, people might project less positivity to the outgroup. Taking into consideration that social projection involves the activation of the personal self (Clement & Krueger, 2000) and that outgroup priming leads to the activation of the social self (Hall & Crisp, *in press*) we expect that following

positive imagined contact and when the self (versus the outgroup) is salient, projection of positivity will be greatest.

The population tested in this experiment were British students and the target group International students. Given the increasingly large number of International students in British Universities (Bohm, Follari, Hewett, Jones, Kemp, Meares, et al. 2004), we highlight the importance of identifying potential problems that arise from this new social reality for both the newcomers and the host institutions. Testing the imagined contact intervention in this context can provide some important information regarding the relations between the two groups as well as enhance the generalizability of imagined contact effects.

Method

Participants and design

Ninety-eight female undergraduate Psychology students of the University of Birmingham took part in this experiment[5]. They volunteered in exchange for course credit. Given that the experiment was designed to measure contact with International students, all participants were British. Participants were randomly allocated to a 2 (prime: self-first vs. outgroup-first) x 2 (no imagined contact vs. imagined contact with International students) design.

Procedure

Similar to Experiment 1, this experiment was designed to measure the effects of imagined contact on the projection of positive traits to the outgroup. The procedure for the experimental, positive imagined contact condition was the same as in Experiment 1, except the target group was International students and participants imagined the interaction taking place on a train rather than a bus. Having found evidence that neither neutral intergroup contact (Experiment 1) nor positivity (Experiment 2) enhanced projection relative to imagined positive contact with outgroupers we returned to a variant of the imagined outdoor scene control used in previous research (Turner et al., 2007). We did this because our dependent measure (projection) focused on a particular aspect of intergroup relations that differed from the measure of intergroup attitudes used in previous work.

Observing positive effects of imagined contact compared to a common control will help to link our findings further to this previous research. Participants in the control condition were instructed:

> Please spend the next three minutes imagining that you are in a furniture shop containing lots of different types of furniture. Please list the different types of furniture you might see.

As in Experiment 1 participants then listed aspects of the scene they had imagined. Following this participants were asked to complete the measure of projection. In order to test for the effects of priming the personal versus social self, half of the participants described themselves first and outgroup second and the other half described the outgroup first and themselves second.

Dependent variable

Since we found in Experiment 2 that using continuous measures of individual trait attribution resulted in the same basic effect as observed in Experiment 1 we were satisfied that we could detect our predicted effects using the simpler version of our projection measure (which was considerably quicker and easier to administer). We therefore went back to using the measure of projection used in Experiment 1.

Results and discussion

We followed the same procedure in forming the index of projection of positive and negative traits as used in Experiment 1. Means and standard deviations of projection, as a function of contact condition and self versus outgroup prime can be found in Table 2.

Projection of positivity

As in Experiment 1 we computed planned contrasts. The order for all contrasts was: No contact/outgroup first, no contact/self first, positive contact/outgroup first, positive contact/self first. Contrast A was -1, +1, 0, 0 and tested the difference in positive projection when priming outgroup or self in the control condition. Contrast B was +1, +1, -2, 0 and tested the difference between priming outgroup and self in the control condition and priming the outgroup following positive imagined contact. Contrast C was -1, -1, -1,+3 and tested the difference between priming self

following positive imagined contact compared to all the other conditions. If our hypothesis that there would be more positive projection to the outgroup only when self is primed and following positive imagined contact is correct, only Contrast C should be significant.

The results confirmed our predictions. For positive traits Contrast A was not significant, t (94) = .82, p = .416. Contrast B was not significant, t (94) = .36, p = .722, but, as predicted, Contrast C was significant, t (94) = 2.85, p = .005, confirming that when the self was primed and following positive imagined contact projection of positive traits was highest. As in Experiment 1, overall projection (positive and negative traits combined) followed the same pattern as projection of positive traits. Contrast A was not significant, t (94) = .64, p = .526, Contrast B was not significant, t (94) = .19, p = .846 and Contrast C was significant, t (94) = 2.73, p = .008. None of the contrasts were significant for negative traits[6].

In this study, we tested the hypothesis that following imagined positive contact and when participants describe the self rather than the outgroup first projection would be highest. The results provided support for this hypothesis. We found that following imagined positive contact and when the personal self was salient was there the highest projected positivity.

General discussion

With the aim of developing a new type of intergroup contact -- imagined contact -- and to examine the conditions under which it is most effective, we carried out three studies. In these studies participants from two distinct social and cultural settings, Mexico and the United Kingdom, were asked to imagine a context that involved positive contact with an outgroup member. The results suggest that imagining contact elicits the projection of positive traits from the self to the outgroup. With respect to shedding some light to the conditions that enhance or inhibit the effects of imagined contact we investigated three conditions: Majority and minority group contexts, ingroup identification and personal self salience. Overall, we found evidence that following imagined contact projection is stronger for majority group members, when ingroup identification is lower, and when the personal self is salient. We discuss the theoretical and practical implications of these findings below.

Theoretical implications

Throughout our investigation we have identified a common threat that identifies *self and identity processes* as integral to the success of imagined intergroup contact. We can now provide an exposition of our three experiments that highlights this common link. In Experiment 1, we found minority group members more resistant to imagined contact than majority group members. This could be because for minority group members, the social self (strongly associated with their identity) is more prominent. Indeed, according to Optimal Distinctiveness Theory (Brewer, 1991) minority group membership can satisfy simultaneously the need for distinctiveness *and* inclusion to a greater extent than majority group membership, thus individual minority group members are more likely to identify strongly with the group than majority group members and consequently express more bias (Leonardelli & Brewer, 2001). In our studies, this could be expressed by not projecting positivity to the outgroup after imagined contact.

Delving a little deeper, we hypothesized that if there are indeed differences in the levels of projected positivity towards the outgroup arising variation in social identity processes, then differences in ingroup identification should also predict projection. The results of Experiment 2 confirmed that positive imagined contact increased projection but only for lower identifiers. We went on to argue that, since projection *requires* a salient personal self, priming the self versus outgroup should promote projection following imagined intergroup contact. Our results in Experiment 3 supported this prediction.

More generally, findings from this research add to recent work indicating that imagined contact with an outgroup member can have beneficial effects on outgroup attitudes (Turner et al., 2007). Extending this research, one basic premise of our work is that a key facilitator of the effects of contact is that it has to be perceived as *positive*. This is in line with Pettigrew and Tropp's meta-analysis (2006) that showed that mere contact is capable of reducing prejudice but the effect is greater under optimal conditions, or as we suggest, when the contact experience is seen as positive by the interacting members. The positive character of contact was manipulated by asking participants either to list

interesting and positive things they found out about an outgroup member after their *imagined* interaction on a train or to answer a series of questions regarding the *imagined* outgrouper that they meet at a party (a positive context). In the conditions of positive imagined contact versus neutral contact (Experiment 1), positive contact in general without requirement of an intergroup interaction (Experiment 2) and no contact but equivalent informational load (Experiment 3), we observed positive projection toward the outgroup. This is consistent with findings from contact research that consistently show the benefits specifically of *positive intergroup* contact (Eller & Abrams, 2004; Paolini et al., 2004; Pettigrew, 1998). The use of a wide range of control conditions provides increasing confidence in the unique benefits of mentally simulating positive contact experiences with outgroupers, and provides a clear guide for successful implementation in future studies.

Contact and projection

Research has shown that whereas projection to ingroup members is a robust phenomenon under baseline conditions, projection to outgroups is limited and weak (see Robbins & Krueger, 2005 for a meta-analysis). Riketta (2006) found that outgroup projection is stronger under conditions of intergroup harmony and weaker under perceived intergroup conflict. Our research goes one step further and shows that imagined positive contact facilitates projection of positivity to outgroup members. The use of projection as a positive consequence of contact is also an important advance. Projection is a cognitive attitudinal process that is integral to positive intergroup relations (Clement & Krueger, 2002; Krueger, 2000; Krueger & Zeiger, 1993; Riketta, 2006). Trait projection reflects the extent to which the self and outgroup are perceived to be socially connected, and is, as we have shown, particularly applicable to contact experiences.

Our focus on projection also builds upon research on the more general role of similarity in explaining the positive effects of contact on intergroup attitudes. Research on intergroup contact has shown that similarity is positively related to outgroup attitudes, as well as both direct contact (Eller & Abrams, 2003) and indirect contact (Wright et al., 1997). These findings are also consistent with more general similarity-attraction principles (e.g., Byrne, 1969) as well as, tangentially, research on crossed

categorization (Crisp & Hewstone, 2007) and the common ingroup identity model (Dovidio & Gaertner 2000) where blurring intergroup boundaries reduces bias.

Of particular relevance to our findings is the research by Wright and colleagues on extended contact that has adopted principles from the interpersonal domain to help explain why indirect contact can improve outgroup attitudes. Research on interpersonal relations has shown that in close relationships, individuals spontaneously perceive an overlap (in terms of traits, attitudes, beliefs, etc) between the self and the close other (Aron, Aron, Tudor, &Nelson, 1991, Aron, Aron & Smollan, 1992; Sedikides, Olsen & Reis, 1993). Extending this, the self-expansion model maintains that forming close relationships with an outgroup member should reduce prejudice (Aron, Aron, & Norman, 2004). The reason for this is that when people have outgroup friends, they include this relationship (like other relationships) in their definition of the self: By extension, this should lead to more positive attitudes towards outgroup members. In the intergroup contact literature, perceived overlap, as measured by the means of the "inclusion of the other in the self" scale (IOS; Aron et al., 1992) has been found to be key mediator of the contact-prejudice relationship. Eller and Abrams (2004), for example, found that contact as friends and quantitative contact predicted evaluation of the outgroup via the mediating path of IOS. IOS has also been found to mediate more positive attitudes towards outgroupers following extended contact (Wright et al., 1997, Cameron, Rutland, Brown, & Douch, 2006).

We believe our projection findings contribute further to our understanding of the role of self-other overlap in the contact literature. While we did not use an IOS measure, there are clear parallels with our trait overlap measure. Where we believe we contribute to existing conceptualizations of the contact-overlap-attitudes relationship is in showing that it is not *just* overlap that is important, but overlap that is derived from self positivity. By showing that self-other overlap varies as a function of projection-relevant moderators (group size, identification, identity salience) we have provided an elaborated account of the importance of the self, and the represented relationship between the self and outgroup, for contact interventions.

Related to this issue, one could ask whether it is specifically positive projection (or projection per se, including both positive and negative traits) that follows imagined contact. Based on the general similarity and IOS findings discussed above, it would be reasonable to expect contact to promote the overall projection of positive and negative traits to outgroups. Throughout our studies, overall projection (of both positive and negative traits) is found to follow a similar, but less pronounced, pattern as positive projection. The finding that the predicted projection pattern is stronger for positive than overall traits makes both logical and theoretical sense, and has a strong empirical precedent. Logically one might expect the projection of positive traits to have an overall more positive effect on subsequent attitudes that projection of both positive and negative traits: the latter diluting the effect of the former. Theoretically and empirically, all projection models (e.g., Gramzow & Gaertner, 2005, Otten & Wentura, 2001; for meta-analysis see Robbins and Krueger, 2005) predict (and have shown) that projection from the self will be typically positive because the self is typically positive.

Finally, we would also note that projection is a particularly interesting (and relevant) concept with respect to imagined contact. Both are arguably forms of *prospection*, which is "a shift in perception from the immediate environment to the alternative, imagined future environment…the imagined event is referenced to oneself" (Buckner &Carroll, 2006, p. 49). Accordingly, imagined contact and projection could be closely linked as parts of an "autonoetic" consciousness, which according to Tulving (1985) is the "kind of consciousness that mediates an individual's awareness of his or her existence and identity in subjective time extending from the personal past through the present to the personal future" (p.1). Investigating these intriguing links will be an important and interesting endeavor for future research.

Practical implications

Reducing intergroup bias

In three experiments we tested imagined contact interventions with different target groups (Indigenous people and Meztizos, French nationals and International students), and this represents an important test of the effectiveness and generalizability of the imagined contact intervention. The fact

that *imagining* contact can elicit positive intergroup attitudes regardless of actual contact experiences may have important practical implications, especially if it is found to be effective in contexts of intergroup conflict. In social settings where positive contact is not possible or feasible due to significant conflict and segregation (e.g., Israel and Palestine) or lack of opportunity (e.g., contact between young and elderly), the knowledge that imagining contact can create similar beneficial responses as actual interactions will be valuable for policy makers and educators. For example, schools could develop and apply teaching techniques that will encourage contact imagery in order to bring groups closer together and promote tolerance.

Additionally, the benefits of imagined contact can extend, and compliment, those of direct contact by reducing pre-contact anxiety. Actual, face-to-face interactions with outgroup members can elicit negative affective reactions like intergroup anxiety if there is no prior intergroup contact or if there is an anticipation of negative consequences (Stephan & Stephan, 1985). Imagined contact, however, can act as an anxiety-buffer mechanism by introducing people gradually to interactions with outgroups. Positive imagined contact could compliment other bias-reduction methods by serving as a preparatory measure, laying the foundations and providing optimal conditions for successful actual future contact.

Implications for the populations tested

The studies described in this research used diverse samples and target groups in order to test the effectiveness of imagined intergroup contact. We focused on inter-ethnic and inter-nation contact. The relations that were examined were British and International students, English and French nationals, and Mestizos and Indigenous people in Mexico. In Experiment 1, we showed that contact between an ethnic majority and minority group is considerably less effective in reducing bias in the case of the latter. For members of the ethnic minority (Amerindian) group, projection did not increase after imagined positive contact like for the majority group. The considerable differences in status between the two ethnic groups may account for the weaker effect of contact on bias in the case of the minority group. Findings from Experiment 2 have implications for the increasingly large number of

International students in British Universities (Bohm et al., 2004). International students report feelings of isolation and difficulties when mixing with home students (UKCOSA, 2004). Respectively, "home" students tend to ascribe unfavorable attributes to International students (such as frightened, depressed) due to perceived cultural and social adjustment problems (Spencer-Rodgers & McGovern, 2002) or communication barriers like different languages (Wiseman & Koester, 1993). We can be optimistic that promoting contact between International and British students, or the host society in general, will improve intergroup attitudes and promote the social adjustment of International students.

These findings also suggest some caution when applying methods of bias reduction. Strategies that aim at promoting intergroup contact can mean different things to different people (for a similar argument see Crisp, 2006). Whereas some people exhibit improved attitudes toward outgroupers following intervention implementations, for others the same process can intimate a threat to identity. This is pertinent to the issue of promoting a European identity within European Union countries (like in the case of the UK and France), which can potentially pose a threat to the identities of the subgroup member states. To maximize the effectiveness of bias-reduction interventions the particular characteristics of the targeted populations, including historical and cultural issues, have to be taken into consideration (Gaertner & Dovidio, 2000).

Future research

There are several interesting avenues for future research that arise from these studies. First, we have argued that personal self salience is a common theoretical link that accounts for why projection is greater for majorities, lower identifiers and when it is directly manipulated alongside imagined contact. One question that arises is whether the personal self should be salient prior to, or after, imagined contact in order to exert a facilitating effect. Our findings suggest that personal identity salience both *before* and *after* imagined contact has the same effects. In Experiment 3 personal identity is made salient after the imagined contact task and in Experiment 2 we can reasonably conclude that personal identity is salient before the imagined contact task. However, in Experiment 2 we inferred personal identity salience from self-reported lower identification. It would therefore be informative in future research to

include an experimental manipulation of personal versus social self salience prior to the imagined contact task.

Another important direction for future research will be to establish the further consequences of positive projection to outgroups following both imagined and real contact. Notwithstanding the links between projection and measures of self-other similarity such as the IOS, an important consequence of projection will be the impact on more general indices of intergroup attitudes, stereotyping, perceived homogeneity and behavior. Having now established projection as an important outcome of imagined contact, and the moderating conditions under which positive projection is maximized, empirically establishing such links will be an important endeavor for future work.

Some other intriguing possibilities present themselves for future research on imagined contact. Imagined contact may function in a similar way as systematic desensitization in clinical behavioral therapies. Systematic desensitization is a type of behavioral therapy used for the treatment of phobias and anxiety disorders. It works by gradually exposing patients to the object or situation that causes the phobia until it becomes tolerated. The phobic reaction is progressively reduced because of a decrease in the resultant anxiety (Yates, 1975). Exposure to the phobic stimuli is found to sufficiently reduce anxiety and fear-related behaviors and emotions (Marks, 1975). In the same way, imagining contact with an outgroup may act as a psychological buffer of anxiety, which can progressively lead to improved outgroup attitudes. In other words, because imagined contact is not experienced face-to-face, it is less likely to induce intergroup anxiety like direct contact. Exploring these links will be potentially fruitful avenues in future research.

Finally, we should consider a potential limitation of imagined contact, which is that it is likely not be as powerful as more direct contact. Given that direct experiences produce stronger attitudes than indirect experiences (Fazio, Powell, & Herr, 1983), imagined contact may have a less powerful effect on intergroup attitudes. Research on direct and extended contact shows that, on average, direct contact exerts a stronger effect on prejudice reduction than extended contact (Paolini et al., 2004).

Similarly, imagined contact, being a more indirect form of interaction, may have a more temporary effect compared to actual, direct contact. These are important issues for future research.

Conclusion

In this article we have shown, in three studies, that mentally simulating positive contact with outgroupers facilitates the projection of positive self traits to the outgroup as a whole. We extended previous work by exploring the conditions under which imagined contact is most effective, and we found this to be the case for majority group members, at lower levels of identification, and when the personal self is salient. These findings add further support for the usefulness of imagined contact as a means of reducing intergroup bias, and provide a practical guide to maximizing its positive effects. Further elaboration and refinement of such flexible conceptualizations of intergroup contact will help towards establishing the most effective tools for scholars and policy makers seeking to promote tolerance and harmonious intergroup relations.

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Footnotes

[1] Five participants were removed from the original data set because they were outliers.

[2] One participant did not indicate their gender.

[3] The measure of projection we adopt here is consistent with others used previously in the social projection literature (e.g., Cadinu & Rothbart, 1996). One could argue, however, that this measure of projection does not take into account the total number of traits attributed to the outgroup, and in order to ensure that an increase in the number of traits attributed to the outgroup does not account for the self-outgroup overlap this should be included in our measure. We therefore computed the above analysis with a measure of projection constituted by the number of traits shared with the outgroup minus the unshared traits. The pattern of results was the same, with Contrast C again the only significant contrast, t (90) = 2.84, p = .006.

[4] We also tested for differences between the contact conditions at lower and higher levels of identification (-1 and +1 SDs respectively). This analysis revealed that at higher levels of identification, positive projection was no different in the outgroup contact condition compared to the no outgroup contact condition, β = -.28, t = -1.56, p = .123. At lower levels of identification, however, there was a trend for greater projection of positivity under contact with the outgroup compared to control, β = .34, t = 1.82, p = .07.

[5] Due to an omission in questionnaire construction, no age data was collected.

[6] As in Experiment 1 we also carried out an alternative analysis that corrected for total traits attributed to the outgroup. As in Experiment 1, this did not change the pattern of results reported above with Contrast C the only contrast that approached significance, t (94) = 1.78, p = .078.

Table 1. *Projection as a function of imagined contact and majority or minority group membership, Experiment 1.*

		Imagined contact condition			
		Neutral		Positive	
		Mean	Std. Deviation	Mean	Std. Deviation
Projection of positive traits	Minority group	2.00	2.00	2.57	2.04
	Majority group	2.60	1.50	3.68	1.82
Projection of negative traits	Minority group	0.94	0.87	0.95	1.28
	Majority group	0.60	0.81	0.44	0.65
Overall projection	Minority group	2.94	2.13	3.52	2.27
	Majority group	3.20	1.86	4.12	1.96

Table 2. *Projection as a function of imagined contact and prime, Experiment 3*.

		Imagined contact condition			
		Non-intergroup contact		Intergroup contact	
		Mean	Std. Deviation	Mean	Std. Deviation
Projection of positive traits	Outgroup first	3.14	2.14	3.20	2.18
	Self first	3.63	2.28	4.81	1.81
Projection of negative traits	Outgroup first	0.32	0.55	0.36	0.64
	Self first	0.25	0.44	0.38	0.67
Overall projection	Outgroup first	3.46	2.49	3.56	2.31
	Self first	3.88	2.23	5.19	2.18

Figure captions

Figure 1. Projection as a function of imagined contact and ingroup identification, Experiment 2.